

1 CLAIMS

2 **SUB A17**

3 1. A method comprising:

4 maintaining meta data associated with a plurality of pieces of content stored
5 on a plurality of pieces of media;

6 maintaining meta data associated with another plurality of pieces of content, wherein each of the other plurality of pieces of content corresponds to one
7 of the plurality of pieces of content and is another version of the data in the
8 corresponding one of the plurality of pieces of content; and
9

10 altering the meta data associated with one of the other plurality of pieces of
11 content in response to the meta data associated with the corresponding one of the
12 plurality of pieces of content being altered.

13
14 2. A method as recited in claim 1, wherein each of the plurality of
15 pieces of content is a track of a compact disc (CD).

16
17 3. A method as recited in claim 1, wherein each of the other plurality of
18 pieces of content is a ripped version of the corresponding one of the plurality of
19 pieces of content.

20
21 4. A method as recited in claim 1, wherein each of the other plurality of
22 pieces of content is stored on a local hard drive.

1 5. A method as recited in claim 1, further comprising:
2 receiving an identification of a set of content selected from the plurality of
3 pieces of content;
4 obtaining table of contents information from a disc on which all of the set
5 of content is stored;
6 generating a disc identifier based at least in part on the table of contents
7 information;
8 identifying meta data corresponding to the set of content; and
9 generating a new storage structure, corresponding to the disc, and including
10 the identified meta data.

11
12 6. A method as recited in claim 1, further comprising:
13 maintaining a set of disc identifiers;
14 for each disc identifier, maintaining a set of children objects, wherein each
15 of the children objects corresponds to one of the plurality of pieces of content; and
16 for each of one or more of the individual children objects, maintaining a set
17 of additional objects, wherein each additional object corresponds to one of the
18 other plurality of pieces of content.

19
20 7. A method as recited in claim 1, wherein the meta data is stored on a
21 computer-readable medium having a data structure comprising:
22 a set of entries identifying objects, where each of the plurality of pieces of
23 content corresponds to an object;
24 another set of entries identifying relationships between selected ones of the
25 objects identified in the set with selected others of the objects; and

1 an additional set of entries identifying meta data associated with individual
2 objects.

3
4 **8.** One or more computer-readable memories containing a computer
5 program that is executable by a processor to perform the method recited in claim
6 1.

7
8 **9.** One or more computer-readable media having stored thereon a
9 plurality of instructions that, when executed by one or more processors of a
10 computer, causes the one or more processors to perform the following acts:

11 receiving an identification of a change to be made to meta data
12 corresponding to a particular piece of content on a particular piece of media;

13 changing, based on the identification, meta data corresponding to the
14 particular piece of content;

15 identifying one or more other pieces of content associated with the
16 particular piece of content; and

17 changing, based on the identification, meta data corresponding to the one or
18 more other pieces of content.

19
20 **10.** One or more computer-readable media as recited in claim 9, wherein
21 the particular piece of content on the particular piece of media comprises a
22 particular song on a particular compact disc (CD).

1 **11.** One or more computer-readable media as recited in claim 9, wherein
2 the identification includes new meta data and wherein changing the meta data
3 corresponding to the particular piece of content comprises overwriting any
4 previous meta data corresponding to the particular piece of content with the new
5 meta data.

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7 **12.** One or more computer-readable media as recited in claim 9, wherein
8 the particular piece of content comprises an audio track and wherein the other
9 pieces of content comprise different versions of the audio track.

10

11 **13.** One or more computer-readable media as recited in claim 9, wherein
12 the other pieces of content comprise ripped versions of the particular piece of
13 content.

14

15 **14.** One or more computer-readable media as recited in claim 9, wherein
16 original meta data associated with the particular piece of content comprises meta
17 data received from a remote server, and wherein the change to be made to the meta
18 data corresponding to the particular piece of content comprises new meta data
19 received from a user.

1 **15.** One or more computer-readable media as recited in claim 9, wherein
2 the plurality of instructions further causes the one or more processors to perform
3 the following acts:

4 receiving another identification of a change to be made to meta data,
5 wherein the other identification is a change to be made to one of the other pieces
6 of content;

7 changing, based on the other identification, the meta data corresponding to
8 the one of the other pieces of content;

9 changing, based on the identification, the meta data corresponding to the
10 particular piece of content; and

11 changing, based on the other identification, the meta data corresponding to
12 the others of the one or more other pieces of content.

13
14 **16.** One or more computer-readable media as recited in claim 9, wherein
15 the plurality of instructions further causes the one or more processors to perform
16 the following acts:

17 maintaining an indication of a source of the change to the meta data
18 corresponding to the particular piece of content;

19 maintaining an indication of a source of the change to the meta data
20 corresponding to each of the one or more other pieces of content;

21 receiving an identification of another change to be made to meta data
22 corresponding to the particular piece of content;

23 checking whether the source of the change to the meta data corresponding
24 to the particular piece of content was a user;

1 changing, based on the identification of the other change, meta data
2 corresponding to the particular piece of content if the source of the change to the
3 meta data corresponding to the particular piece of content was the user;

4 checking whether the source of the change to the meta data corresponding
5 to the one or more other pieces of contents was the user; and

6 changing, based on the identification of the other change, meta data
7 corresponding to the one or more other pieces of content if the source of the
8 change to the meta data corresponding to the one or more other pieces of contents
9 was the user.

10
11 **17. A system comprising:**

12 a disc drive configured to have a removable disc inserted therein, wherein
13 the removable disc includes a plurality of pieces of content;

14 a local storage device configured to store another plurality of pieces of
15 content, wherein each of the other plurality of pieces of content corresponds to one
16 of the plurality of pieces of content and is another version of the data in the
17 corresponding one of the plurality of pieces of content; and

18 a meta data management module, configured to alter meta data associated
19 with one of the other plurality of pieces of content in response to meta data
20 associated with the corresponding one of the plurality of pieces of content being
21 altered.

1 **18.** A system as recited in claim 17, wherein the local storage device is
2 further configured to store both meta data associated with the plurality of pieces of
3 content and meta data associated with the other plurality of pieces of content.

4

5 **19.** One or more computer-readable media having stored thereon a
6 plurality of instructions that, when executed by one or more processors of a
7 computer, cause the one or more processors to perform the following acts:

8 receiving an identification of a plurality of tracks on a disc;
9 obtaining table of contents information from the disc;
10 generating a disc identifier based at least in part on the table of contents
11 information;

12 accessing a local meta data store to identify meta data corresponding to the
13 tracks and associated with another disc; and

14 generating a new storage structure, corresponding to the disc, and including
15 the identified meta data.

16

17 **20.** One or more computer-readable media as recited in claim 19,
18 wherein the plurality of instructions further cause the one or more processors to
19 save an indication of a relationship between the plurality of tracks on the disc and
20 corresponding to tracks associated with the other disc.

21

22 **21.** A method comprising:

23 receiving a notification of a new piece of media, wherein the new piece of
24 media includes a plurality of pieces of content that are selected by a user for
25 inclusion on the new piece of media, and wherein the user selection is based on

1 one or more other pieces of content associated with one or more other pieces of
2 media;

3 generating a media identifier corresponding to the new piece of media;
4 identifying, from a meta data store, meta data corresponding to the plurality
5 of pieces of content and associated with the one or more other pieces of content;
6 and

7 saving, as meta data corresponding to the new piece of media, the identified
8 meta data.

9
10 22. A method as recited in claim 21, wherein the new piece of media
11 comprises a compact disc (CD).

12
13 23. A method as recited in claim 21, wherein each of the plurality of
14 pieces of content comprises a song.

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16 24. A method as recited in claim 21, wherein generating the media
17 identifier comprises:

18 obtaining table of contents information for the new piece of media; and
19 calculating, based at least in part on the table of contents information, the
20 media identifier corresponding to the new piece of media.

21
22 25. A method as recited in claim 21, further comprising saving an
23 indication of a relationship between content on the new piece of media and the
24 corresponding one or more other pieces of media.

1 **26.** One or more computer-readable memories containing a computer
2 program that is executable by a processor to perform the method recited in claim
3

4 **21.**

5 **27.** A method of managing meta data corresponding to media content,
6 the method comprising:

7 maintaining a set of disc identifiers;

8 for each disc identifier, maintaining a set of corresponding children objects,
9 wherein each of the children objects corresponds to a track on the disc associated
10 with the disc identifier;

11 for each of one or more of the individual children objects, maintaining a set
12 of additional objects, wherein each additional object corresponds to a file
13 associated with the track corresponding to the child object; and

14 associating, for each of the one or more individual children objects, the set
15 of additional objects with the child object.

16
17 **28.** A method as recited in claim 27, further comprising associating
18 meta data with each child object and each additional object.

19
20 **29.** A method as recited in claim 27, further comprising propagating, to
21 the set of additional objects, any changes made to meta data corresponding to the
22 child object.

1 30. A method as recited in claim 27, further comprising:
2 receiving an indication to change meta data associated with one track on the
3 disc;
4 altering, in response to the indication, meta data associated with the child
5 object corresponding to the one track; and

6 altering, in response to the indication, meta data associated with the
7 additional object corresponding to the child object corresponding to the track.

8
9 31. A method as recited in claim 27, wherein one or more disc
10 identifiers in the set of disc identifiers is a compact disc (CD) identifier.

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12 32. A method as recited in claim 27, wherein one or more disc
13 identifiers in the set of disc identifiers is a digital versatile disc (DVD) identifier.

14
15 33. One or more computer-readable memories containing a computer
16 program that is executable by a processor to perform the method recited in claim
17 27.

18
19 34. A computer-readable medium having stored thereon a data structure,
20 comprising:

21 a set of entries identifying objects;
22 another set of entries identifying relationships between selected ones of the
23 objects identified in the set with selected others of the objects; and
24 an additional set of entries identifying meta data associated with individual
25 objects.

1
2 **35.** A computer-readable medium as recited in claim 34, wherein each
3 set of entries is implemented as a different table in a database.
4

5 **36.** A computer-readable medium as recited in claim 34, wherein the set
6 of entries also associates the objects with identifiers;
7

8 **37.** A computer-readable medium as recited in claim 34, wherein the
9 other set of entries identifies the relationships based on the identifiers associated
10 with the objects.
11

12 **38.** A method comprising:
13 receiving an indication of a change to be made to meta data corresponding
14 to a content track associated with a particular medium;
15 identifying a file associated with the content track, wherein the file stores a
16 different version of the data in the content track;

17 changing, based on the indication, meta data corresponding to the content
18 track; and

19 changing, based on the indication, meta data corresponding to the file.
20

21 **39.** A method as recited in claim 38, wherein the content track
22 comprises an audio track.
23

1 **40.** A method as recited in claim 38, wherein the content track
2 comprises an audio/video track.

3
4 **41.** A method as recited in claim 38, wherein the content track
5 comprises a video track.

6
7 **42.** A method as recited in claim 38, wherein the particular medium
8 comprises a particular compact disc (CD).

9
10 **43.** A method as recited in claim 38, wherein the particular medium
11 comprises a particular digital versatile disc (DVD).

12
13 **44.** A method as recited in claim 38, wherein the particular medium
14 comprises a particular optical disc.

15
16 **45.** One or more computer-readable memories containing a computer
17 program that is executable by a processor to perform the method recited in claim
18 38.